

CLAIMS

1.- A video and sound signal broadcasting system applicable to railways,
5 consisting of a video-signal transmission system to carriages (1) of an underground metropolitan railway convoy, equipped with terminals in the form of television screens and sound, consisting of a signal transmitter head subsystem, a transmission subsystem responsible for sending the signal to the carriages and an onboard equipment subsystem, inside the convoy carriages, characterised in that the three mentioned subsystems are
10 co-ordinated to each other, the mentioned head subsystem consisting of a video-signal receiver device, receiving from a remote production or diffusion centre, said video signal being coded in MPEG2 format and inserted in a local Wireless Ethernet telecommunication network, deployed along the tunnels of a railway network, whilst the transmission subsystem consists of a transmitter device (4), located in each station and
15 connected to a port of the router of each station of said Wireless Ethernet network and the onboard subsystem in the trains, consisting of a control and reception exchange, power supply and some TFTs or terminal screens.

2.- A system, according to claim 1, characterised in that the mentioned local
20 Wireless Ethernet telecommunications network is a GigaEthernet network

3.- A system according to the first claim, characterised in that the mentioned transmission subsystem (4) covers all the tunnel topology, including at least one transmitter device located in each station, formed by three antennas: two one-way ones
25 (2) at the end of each tunnel (5) and an omni-directional one (3) to give coverage to the station, it being possible according to the distance and tunnel topology that an additional antenna exists at an intermediate point of said tunnel.

4.- A system according to some of the previous claims, characterised in that in
30 said onboard subsystem in trains, the mentioned control receiver exchange has a Wireless Ethernet card foreseen to receive the contents transmitted by the previous antennas covering the railway network, having the latter an applied and specific

computer programme which decodes the compressed signal in MPEG2 format, converting it to a suitable means to be display by the TFTs or terminal screens.

- 5 5.- A system, according to claim 4, characterised in that the onboard subsystem assembly has a monitoring and control equipment allowing to know, at all times, the operational status of the entire system.

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